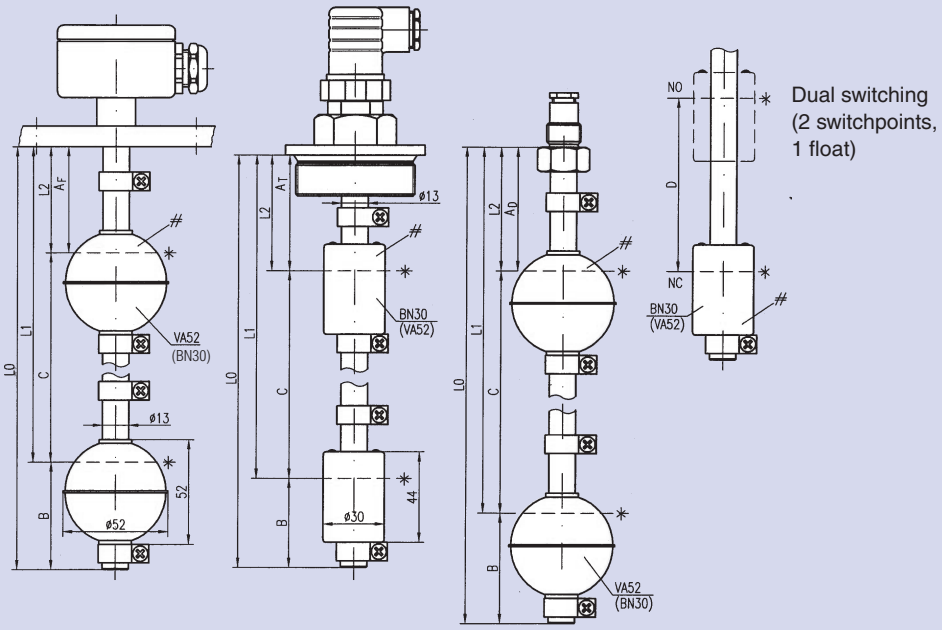
Multi Level Switches Type UNS-2000

Dimensions
(in mm)



1. Length tolerance ±3 mm
2. L0 = max. 3000 mm

* Immersion depth at density 1:
VA52 = 36 ±2 mm
BN30 = 20 ±2 mm

# Float position:
VA52 = NO/NC ⇒ see float marking
SPDT ⇒ NO-function
BN30 = NO ⇒ compound points at bottom
NC ⇒ compound points at top
SPDT ⇒ compound points at bottom

Function

The multi Level Switch Series UNS 2000 can be supplied with up to 6 switchpoints (see max. switchpoints). Besides the float operated reed contacts to detect liquid levels, the UNS 2000 can be supplied also with a temperature sensor and/ or temperature contact(s), which are to handle as switchpoint(s) - please note max. switchpoints! A wide selection of mounting elements, electrical connections, various materials and options allow you to "design" your own switch, within the given dimension limits, for your particular application. Very long units or large flanges can cause high shipping and installation costs and "split" versions might be the answer. Consult us for the best combination.
The min. dimensions are based upon the medium water. Depending on the density of other fluids this dimension can vary several millimetres. The contact modes (NO or NC) are defined on the basis of an empty tank and for installation through the top or through the bottom (when specified as "-U"). When not specified otherwise we will set the switch position for density 1 (water) and the switch action to be on moving upward. Temperature sensor (PT100) and/ or the temperature switch, a Bi-metall hermetically sealed element, are installed only in the bottom of the stem. That means:
Dimensions B + 10 mm with temperature sensor PT100)
Dimensions B + 40 mm temperature switch (TP)

Switchpoint Dimensions

Dimensions / Float type	Min. distances in mm					
	A_F	A_T	A_D	B	C	D
VA52	32	52	44	55	85	55
BN30	--	60	52	39	77	55

When using -DR: Dimension B + 20 mm!

Max. Switchpoints

	KL6	KL12	ST1	ST2	Pg Cable-connect.
Connect. group 1	5	6	2	5	6
Connect. group 2	2	4	1	2	4
Connect. group 3	3	4	1	3	4
Connect. group 4	2	3	1	2	3

Variations

Material	Mounting	Electr. connect.	Float	Switch-points
VA	T2 FL3 FL4 FL5	ST1 ST2 KL6 KL12 Pg K	VA52	See max. switch-points
	G3/8	Pg K		
Ms	T2	ST1 ST2 KL6 KL12 Pg K	BN30	See max. switch-points
	G3/8	Pg K		

12 / 04 UNS US 04/1

Barksdale Level Switches
Specifications are subject to changes without notice.

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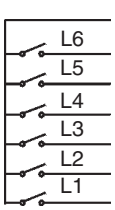
12 / 04 UNS US 04/1

Technical Data

Max. Operating Pressure	: 40 bar, depends on mounting element and float
Max. Temperature Range	: -10 °C...+105 °C, PVC-cable -40 °C...+150 °C, Silicone cab. (-HT) and KL6 / KL12
Min. Fluid Specific Gravity	: See specifications below
Mounting Position	: Vertical, ±30°, through top or bottom
Protection Class	: IP65 for ST-, KL- and PG-design IP67, IP68 on request IP54 for K-design
Weight	: Depends on length and design
Special Design	:- Damping Tube - DR - High Temperature Application (up to +150 °C) - HT - Mounting through bottom - U - PT100-Element - PT100 - Temperature switch - TP - Vertical Adjustment (s. also P25) - ATEX-approval EEx ia

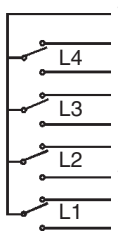
Contact Wiring and Colour Code

Group 1 SPST



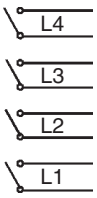
	Terminal
white	1
blue	7
pink	6
grey	5
yellow	4
green	3
brown	2

Group 2 SPDT



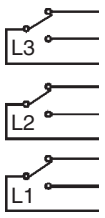
	Terminal
white	1
black	9
red	8
blue	7
pink	6
grey	5
yellow	4
green	3
brown	2

Group 3 SPST



	Terminal
red	8
blue	7
pink	6
grey	5
yellow	4
green	3
brown	2
white	1

Group 4 SPDT



	Terminal
black	9
red	8
blue	7
pink	6
grey	5
yellow	4
green	3
brown	2
white	1

Specifications for Multi Level Switches Type UNS-2000

UNS 2000 - VA/T2 - KL6 - VA52 - L2/2.1 - DR - VV - HT - U - PT100 - TP/XX.X - Exi

Options, please specify when needed

Contact Mode
1 - SPST (NO)
2 - SPST (NC)
3 - SPDT

Contact Rating
250 V AC / DC, 3 A, 100 VA / W
250 V AC / DC, 3 A, 100 VA / W
140 V AC / DC, 1 A, 60 VA / W

Option: Temperature Switch
Contact Rating
TP - 3A, 12 or 24V DC
X - Contact mode 2
XX - Setpoint at rising temperature in °C
Standard +50 °C / +70 °C / +90 °C
Others on request

Total Length L0 = . . . mm (up to 3000 mm Standard)
Specify with your order: L1 = . . . mm, L2 = . . . mm, etc.

Number of Switchpoints (max. 6), L = Level, T = Temperature
L1 = 1 Switchpoint L4 = 4 Switchpoints
L2 = 2 Switchpoints L5 = 5 Switchpoints
L3 = 3 Switchpoints L6 = 6 Switchpoints

See also Connection Groups in table „Max. Switchpoints“ on left pagee

Float Type	min. Density	Material	Form	ø	max. Temp.	max. bar
BN30	0,6 g/cm³	Buna N	Cylinder	30 mm	100 °C (Oil) 80 °C (Water)	15
VA52	0,78 g/cm³	Stainl.St., W.Nr. 1.4571	Ball	52 mm	150 °C	40

(Others on request)

Electrical Connection
ST1 - Cube Plug DIN 43650, 3-pin + Earth
ST2 - Angle Plug DIN 43651, 6-pin + Earth
STDB - Angle Plug with LED-Display DIN 43651, 6-pin + Earth
KL6 - Aluminum Terminal Box, 6 Terminals
KL12 - Aluminum Terminal Box, 9 Terminals
PG7 - PG7-Cable Gland with 1 m PVC-Cable, -HT with silicone cable
K - PCV-Cable sealed, specify length at order. -HT with silicone cable
(Others on request)

Mounting Element
3/8 - G3/8 mounting thread : only with -PG
T1 - G1 Tank screw (not with VA52 float)
T2 - G2 Tank screw
FL4 - Flange DIN 2527 DN 65 PN 16

(Other flanges and mounting threads available on request)

Material of Stem and Mounting Element
VA - SS316 Ti 1.4571, 1.4408
MS - Brass, W. Nr. MS58

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